

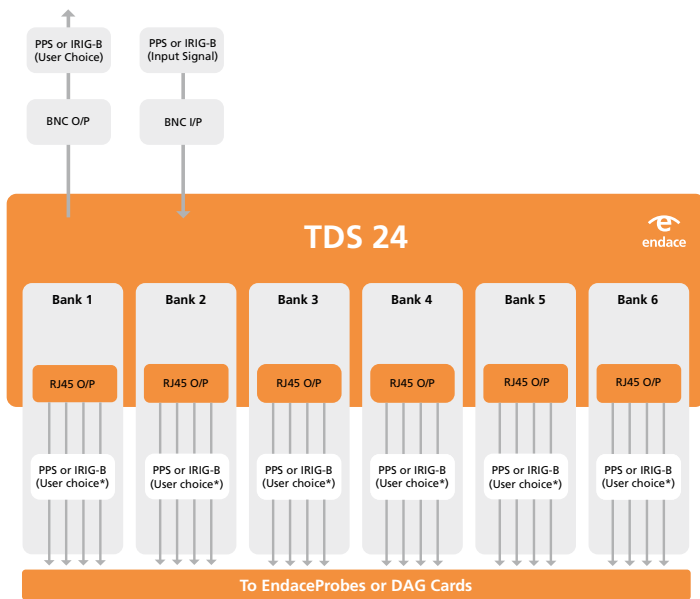
Endace TDS-24



The EndaceTDS™ TDS-24 is a 1RU Time Distribution Server. The TDS-24 is capable of providing accurate timing information to 24 EndaceProbe™ Network Analytics Platforms or DAG™ Packet Capture Cards using either an un-modulated IRIG-B or a 1PPS time source as the input. The 24 output signals can be configured as 1PPS or, when an IRIG-B input signal is used, as IRIG-B or a mix of IRIG-B and 1PPS.

Multiple TDS-24 modules can be daisy-chained together to provide timing information to more than 500 EndaceProbes or DAG Cards.

The importance of accurate time-stamping in network packet capture



*IRIG-B output requires an IRIG-B input signal

TDS-24 AT A GLANCE

- 1U rack-mounted server
- Unmodulated IRIG-B or 1PPS input (BNC and RJ45)
- 24x RJ45 timing outputs – configurable as IRIG-B or 1PPS or a mix of both for flexible deployment
- Fully compatible with Endace DAG Cards and EndaceProbes

BENEFITS

- Deliver a highly accurate time signal to all the packet capture devices on your network
- Compatible with both IRIG-B and 1PPS, deliver both outputs for mixed environments
- Highly accurate timestamps can be used for QoS monitoring applications, bandwidth measurement, traffic engineering and one-way packet delay and jitter measurement over long distances
- Multiple TDS-24 units can be daisy-chained to support up to 500 EndaceProbes or DAG Cards
- Engineered for high reliability and extended mean time between failure (MTBF)

Network Packet Capture

Highly accurate time-stamping of captured network packets is critical in today's world of ultra-high-speed networks, WANs and time-sensitive network applications and protocols. For network monitoring tools to accurately measure latency and jitter, analyze microbursts, and monitor quality of service (QoS) for time-sensitive network applications – particularly in WAN and high-speed network environments – an accurate data-source is needed to feed time-signals to packet capture hardware so that captured traffic can be time-stamped to nanosecond level accuracy.

To ensure this level of accuracy, packet capture devices need to be synchronized with a highly accurate external time signal source – such as a Global Positioning System (GPS) time receiver. This allows appliances to accurately time stamp all captured traffic and, in turn, enables network monitoring and analysis tools to accurately calculate latency and jitter. Highly accurate time synchronization allows analysis of traffic from multiple capture points while maintaining packet order which is critical to many analysis metrics.

EndaceProbes and DAG Cards are capable of time stamping captured network traffic to 100 nanosecond accuracy with a resolution of four nanoseconds. They can be synchronized to an external time source, such as the TDS-24, using an IRIG-B or 1PPS signal connected to their built-in time synchronization ports.

TDS-24 – Technical Specifications

Time Input 1	1 x BNC Accepts unmodulated IRIG-B or 1PPS over TTL
Time Input 2	1 x RJ45 Accepts unmodulated IRIG-B or 1PPS over RS422
Time Output for Chaining	1 x BNC Output signal type (IRIG-B or 1PPS) matches that received at the selected input
Time sync ports	24 ports, arranged in banks of four If the input signal is IRIG-B, then banks may be configured as either IRIG-B or 1PPS
Power supply	100-240 V, 50/60 Hz, 1.8 A
Size	1U 19" rackmount
Dimensions	Height: 43.5mm (1.7") Width: 482.5mm (19") Length: 246mm (9.8")
Weight	2.0kg (4.4lbs)
Operating temperature	10-35°C (50-95°F)
Operating humidity	8-90% non-condensing
Maximum power consumption	11W
Latency	100ns
Error	± 25ns

Companion Products

The following products are compatible with the Endace TDS-24:

EndaceProbe Analytics Platforms

All current and legacy EndaceProbe models are supported

Endace DAG Data Capture Cards

All current model DAG cards including the 10X4-P, 10X2-P, 10X2-S, 9.5G4, 9.5FG4F, 9.2X2, 9.2SX2, 8.1SX, 7.4S, 7.5G2/G4 models are supported. Legacy cards are also supported